

WHAT IS CLAIMED IS:

1. A hose reel which comprises:

a spool for receiving a length of hose thereon;

a mounting bracket;

a fluid inlet tube having a central axis and coupling the spool to the mounting bracket so that the spool can rotate about the central axis of the fluid inlet tube with respect to the mounting bracket; and

a mechanical rewinding mechanism coupled to the spool,

the spool including a hub assembly and a pair of spool flange plates attached to opposite sides of the hub assembly,

the hub assembly comprising, as an integral element thereof, a latch gear having a plurality of teeth that cooperate with a rewinding latch mechanism.

2. A hose reel according to claim 1, wherein the latch gear assembly is supported on an annular bracing structure that is an integral element of the hub assembly.

3. A hose reel according to claim 1, wherein the hub assembly further comprises, as integral elements thereof, a plurality of radial spokes which support hub sections of the hub assembly.

4. A hose reel according to claim 3, wherein the hub sections are spaced apart circumferentially and connected together by circumferentially extending web structures.

5. A hose reel according to claim 1, wherein the mechanical rewinding mechanism includes a spring housing containing a spiral spring and the hose reel includes a spring biased pawl which is pivotally coupled to the spring housing and positioned to cooperate with latch gear.

6. A hose reel according to claim 5, wherein the hub assembly includes a central hub that includes a spring catch and the spiral spring has an inner end that is configured to engage the spring catch.

7. A hose reel according to claim 1, wherein the mechanical rewinding mechanism includes a spring housing and the mounting bracket is coupled to the spring housing.

8. A hose reel according to claim 1, further including a hose guide that is coupled to the mounting bracket and includes a through-opening that is framed by plurality of rollers.

9. A hose reel according to claim 1, wherein the spool flange plates are attached to opposite sides of the hub assembly by a plurality of mechanical fasteners which extend through each of the spool flange plates with the hub assembly positioned therebetween.

10. A hub assembly for a hose reel which comprises, as an integral unit:

a central hub;  
a plurality of spokes extending radially from the central hub;  
a plurality of hub sections provided at the radial ends of the plurality of spokes which define a cylindrical surface upon which a hose can be wound;  
an annular bracing element connected between the plurality of spokes; and  
a latch gear provided on the annular bracing element.

11. A hub assembly for a hose reel according to claim 10, wherein the plurality of hub sections are spaced apart circumferentially and connected together by circumferentially extending web structures.

12. A hub assembly for a hose reel according to claim 10, wherein the plurality of spokes are aligned with axially centers of the plurality of hub sections and the annual bracing element, latch gear and central hub all extend from a common axial side of the plurality of spokes.

13. A hub assembly for a hose reel according to claim 10, wherein the plurality of spokes each have circumferentially and axially extending bracing support structures.

14. A hub assembly for a hose reel according to claim 10, wherein the central hub includes a spring catch.

15. A hub assembly for a hose reel according to claim 10, wherein the latch gear includes a plurality of outward projecting teeth.

16. A hub assembly for a hose reel according to claim 15, wherein the outward projecting teeth are arranged in at least one segment that includes a group of teeth that are preceded and followed by a recess.

17. A hub assembly for a hose reel according to claim 10, wherein the hub assembly comprises an integrally cast unitary structure.

18. A method of forming a spool for a hose reel which comprises:

a) providing a hub assembly that comprises an integral unitary structure that includes:

a central hub;

a plurality of spokes extending radially from the central hub;

a plurality of hub sections provided at the radial ends of the plurality of spokes

which define a cylindrical surface upon which a hose can be wound; and

a latch gear;

b) providing a pair of spool flange plates; and

c) attaching the pair of spool flange plates to opposite sides of the hub assembly.

19. A method of forming a spool for a hose reel according to claim 18, wherein the step of attaching the pair of spool flange plate to opposite sides of the hub assembly comprises coupling the spool flange plates together with a plurality of mechanical fasteners with the hub assembly positioned between the pair of spool flange plates.

20. A method of forming a spool for a hose reel according to claim 18, further comprising providing a spring catch in the central hub of the hub assembly.